

**U.S. Department of Energy
Finding of No Significant Impact
for the East Avenue Security Upgrade
at Lawrence Livermore National Laboratory /
Sandia National Laboratories, California**

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA), DOE/EA-1439, to assess the environmental impacts associated with the proposed East Avenue Security Upgrade of the 1.25-mile roadway between the Lawrence Livermore National Laboratory (LLNL) and the Sandia National Laboratories, California (SNL/CA), properties.

The purpose and need for the East Avenue Security Upgrade by DOE is to provide additional security to essential LLNL and SNL/CA personnel and facilities adjacent to East Avenue.

The proposed upgrade would create a controlled area on the DOE-owned 1.25-mile section of East Avenue between South Vasco and Greenville Roads to meet the need of additional property protection. This roadway is currently open to the public and lies between LLNL and SNL/CA in Alameda County, California. The action would consist of administratively controlling tracts totaling about 16.3 acres.

Alternatives to the proposed action considered in the review process included:

- The No-Action Alternative
- Construction of New Facilities and Relocation of Personnel and Equipment

No significant environmental impacts are expected as a result of the proposed action. Construction impacts are expected to be minor and short-term. The proposed action would not result in an increase of potential impacts to local transportation routes beyond those analyzed and presented in the *August 1992 Final Environmental Impact Statement and Environmental Impact Report for Continued Operation of Lawrence Livermore National Laboratory and Sandia National Laboratories, Livermore* (DOE/EIS-0157, SCH No. 90030847) (1992 Sitewide EIS/EIR) and its January 21, 1993 DOE Record of Decision (S8 FR 6268). The proposed action will not result in offsite impacts that could impact human

health. No adverse impact is expected to minority or low-income populations, and no significant cumulative impacts are expected.

Based on the analysis in the EA, DOE has determined that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of the *National Environmental Policy Act of 1969*, 42 U.S.C. 4321 et seq. Therefore, an Environmental Impact Statement is not required.

Controlling access to East Avenue will require vehicle and pedestrian portals at both the Vasco Road and Greenville Road ends of East Avenue. The area that would be created in the East Avenue corridor between the portals would be a joint LLNL and SNL/CA controlled area. The proposal consists of construction of a new leased trailer or modular badging facility near the southeast corner of East Avenue and Vasco Road; a Vasco Road control point maintained 24 hours a day, seven days a week; a Greenville Road control point maintained 24 hours a day, seven days a week; and a new truck inspection station located to the northwest side of the East Avenue-Greenville Road control point. Modifications to East Avenue would include a vehicle turnaround area, and traffic-stacking lanes at both ends of East Avenue, to ensure that traffic would not back up into adjacent intersections. Pedestrian and bicycle access would continue to be provided. Additionally, fences along East Avenue may be relocated to allow more open access between LLNL and SNL/CA, and new signage will be appropriately placed on East Avenue, Vasco Road, Greenville Road, Patterson Pass Road, and the Interstate 580 freeway to alert traffic to the roadway modifications and federal access rights (per 10 CFR 860).

The Vasco Road control point would be positioned approximately 400 feet east of Vasco Road and the Greenville Road control point would be located approximately 300 feet west of Greenville Road.

The joint LLNL/SNL/CA truck inspection station would be located on the north side of the East Avenue-Greenville Road control point with a turn lane to support the inspection station located approximately 200 feet west of Greenville Road. The entrance would be of adequate size to provide vehicle queuing for the worst-case (peak) delivery periods. A covered inspection shed would accommodate a large double-trailer "big-rig". The inspection area would also include a small office and restroom. The inspected trucks would exit the inspection area back onto East Avenue (within the controlled area) and would continue to the respective LLNL or SNL/CA shipping/receiving areas. LLNL would operate the vehicle inspection station during normal working hours.

ALTERNATIVES: Two alternatives were examined in the EA.

- The No-Action Alternative
- Construction of New Facilities and Relocation of Personnel and Equipment

No-Action Alternative: The No-Action Alternative would mean that the public would have continued access to roadways near sensitive facilities at both LLNL and SNL/CA; no controlled area would be established. This alternative would leave the essential facilities and personnel at LLNL and SNL/CA vulnerable to emerging security threats such as sabotage and vandalism. The short-term impacts associated with the construction, such as generation of fugitive dust and noise and traffic diversions would not occur. However, the No-Action Alternative would not meet DOE's purpose and need.

Construction of New Facilities and Relocation of Personnel and Equipment: DOE would not administratively control East Avenue between the LLNL and SNL/CA sites; however, additional construction of several facilities would be needed to house the essential programs that would be relocated away from East Avenue. At the LLNL site, activities in Buildings 111, 113, and 115 (B111, B113, B115) and accompanying personnel and equipment would need to be relocated onsite in a classified area. At the SNL/CA site, activities in Building 912 and accompanying personnel and equipment would need to be relocated to another classified area. At this time, there are no excess or unused facilities at LLNL or SNL/CA that could be economically modified to support relocation of these programs; therefore, new construction of four facilities, with approximately 552,000 sq. ft. (LLNL, 424,206 sq. ft./SNL/CA, 128,241 sq. ft.) would be needed to provide housing for these existing personnel and equipment. If this proposal were to be adopted, the associated construction and operating impacts would be much greater than for the proposed action. Therefore, the alternative of constructing new facilities and relocating personnel and equipment at both LLNL and SNL/CA was not considered further.

ANALYSIS OF POTENTIAL IMPACTS:

Traffic: A traffic study was conducted in 1989 by TJKM Transportation Consultants to evaluate the potential traffic impacts associated with limiting public access to East Avenue, between Vasco and Greenville Roads. This study concluded that under future (2010) build-out conditions in the City of Livermore, levels of service at intersections in eastern Livermore would not be substantially altered if this section of East Avenue were closed to the public. The results of this 1989 study are cited in the 1992 EIS/EIR.

A recent traffic study conducted in February 2002 was prepared to determine the potential traffic impact of this proposed action, and to review whether the assumptions and conclusions of the 1989 traffic study remain valid. The 1989

traffic study based its assumptions on improvements to the eastern Livermore road network that included nine (9) projects. All of these improvements, except one, have been completed. The 2002 study found that the combined LLNL and SNL/CA employment has declined from approximately 11,000 in 1989 to a current level of approximately 10,000 (or 9 percent reduction); therefore, the previous study in 1989 is likely conservative in its analysis. The 2002 study also evaluated future traffic conditions up to the year 2020 through the use of the Alameda County Congestion Management Agency's travel demand model. The results predicted only a 0.65 percent annual increase in traffic in the study area. Thus, the levels of service (LOS) for the signalized East Avenue/Vasco Road intersection, and for the East Avenue/Greenville Road intersection, are projected to continue to remain at their current level in 2020. Therefore, the proposed action would not result in an increase of potential impacts to local transportation routes beyond those analyzed and presented in the 1992 Sitewide EIS/EIR.

Accidents: In the 1992 Sitewide EIS/EIR, Volume II, Appendix D, several sitewide accident analyses were conducted which created a bounding envelope of reasonably foreseeable accident scenarios for operations at LLNL and SNL/CA. The bounding envelope is a set of individual bounding accidents covering the range of probabilities and possible consequences. However, because this proposed project is specific to location and activity, i.e., the operation of a truck inspection station and its proximity to Waste Management Division (WMD) facilities, the analysis in the EA was limited to fuel truck (>3 axle) accidents at the truck inspection facility. The 1992 EIS/EIR (and its 1999 Supplement Analysis (DOE 1999)) outlined the potential impacts of several bounding accident scenarios related to hazardous waste treatment and storage facilities at LLNL. Also, a previous safety evaluation reviewed the B611 gasoline filling station operations and the potential for impacts of large gasoline spills, fires, explosions, uncontrolled expanding vapor clouds (UEVC) or boiling liquid expanding vapor explosions (BLEVE) on HWM facilities (Area 612). The B611 gas filling station safety evaluation concluded that the probability of catastrophic failures of the WMD facilities leading to large, unacceptable consequences was not credible; and that smaller gasoline leaks present very minor exposure hazards to the WMD facilities. A second safety evaluation evaluated the probability, or frequency, of certain consequences of fuel truck (>3 axle) accidents at the proposed location of the truck inspection station that could impact WMD facilities. The evaluation concluded that the frequency of an unmitigated fuel truck accident resulting in a large fire is extremely unlikely; the probabilities of unmitigated fuel truck accidents resulting in an uncontained vapor explosion (UCVE) or a BLEVE is "beyond extremely unlikely"; and that a minor fuel truck accident is judged to be anticipated with "low consequences" on the inspection station and "negligible consequences" on the LLNL waste management facilities (Area 612). The safety evaluations concluded that the

potential impacts associated with the proposed projects are less-than-significant when compared to the bounding envelope of accident scenarios already identified for LLNL and SNL/CA operations in the 1992 EIS/EIR.

DETERMINATION: The proposed action would provide DOE with the ability to restrict or close the roadway to the general public on either a temporary or permanent basis to improve security at LLNL and SNL/CA. The proposed action meets DOE's purpose and need. The construction and operation of the proposed project would not pose any significant impacts, either directly or cumulatively when considered in the context of other planned actions, on human health or the environment. Studies have shown that potential impacts due to accidents are less than significant. The proposed action is not expected to adversely impact sensitive species at LLNL. The LLNL biologist will conduct surveys prior to and during the project, and if sensitive species are found, appropriate measures will be taken to ensure they are not affected by the proposed action. These measures include stopping or changing the project and contacting the appropriate resource agency for further instruction and/or mitigation measures. Due to the previously disturbed nature of the area, and the shallow depth of proposed excavation, there are not expected to be any impacts to potential cultural or paleontological resources. However, if any items of cultural or paleontological significance were uncovered, work would halt until an archaeologist assesses the find.

Copies of this EA (DOE/EA-1439) are available from:

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